Patent claims for USA:

1. A process for finding heterologous oligonucleotide sequences for a nucleic acid amplification method, wherein

   a) mutually overlapping oligonucleotide sequences are generated by fragmenting conserved regions of the target nucleic acid to be amplified,

   b) these sequence fragments are used for finding similar DNA segments in Genbank or other DNA databases and suitably heterologous oligonucleotide sequences which are derived from organisms of other species are thereby identified, and

   c) the heterologous oligonucleotide sequences which have been found are employed as primers and/or probes for isolating the target nucleic acid using a nucleic acid amplification method.

2. The process as claimed in claim 1, wherein mutually overlapping oligonucleotide sequences, which comprise from 30 to 50 bases, are generated by fragmenting conserved regions in a genome of a virus and heterologous oligonucleotide sequences, which are suitable for detecting the virus, are identified in a gene library.

3. The process as claimed in claim 1, wherein the mismatches which are present in the hybridizing, heterologous oligonucleotide sequences which have been found are replaced with a universal base (e.g. inosine) and complete hybridization with the nucleotide sequence of the target nucleic acid is thereby achieved.

4. A method for nucleic acid amplification, wherein the heterologous oligonucleotide sequences which have been obtained as claimed in claim 1 are employed as primers and/or probes for selectively isolating a predetermined target nucleic acid.

5. The method as claimed in claim 4, wherein a nucleic acid amplification method, such as the polymerase chain reaction (PCR), NASBA (= nucleic acid sequence-based amplification), TMA (transcription-mediated amplification) or LCR (ligase chain reaction), is employed for amplifying the target nucleic acid.

6. A reagent set for implementing a polymerase chain reaction, which comprises a pair of oligonucleotide primers which possess the sought-after DNA sequence and which have been derived from a genome present in an organism of another species.

7. The reagent set as claimed in claim 6, which additionally comprises an oligonucleotide probe which contains a heterologous DNA sequence which is derived from a genome of an organism of another species and which hybridizes with the target nucleic acid DNA sequence which is flanked by the primers.

8. The reagent set as claimed in claim 7, wherein the probe carries two fluorescent dyes (reporter and quencher) in the 5′ and 3′ positions, which dyes influence each other's fluorescence.

9. The reagent set as claimed in claim 6, wherein use is made of a primer which is labeled with two fluorescent dyes (reporter and quencher) and which does not hybridize completely with the DNA sequence to be amplified at the 3′ end.

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